

City of Miami Beach Conducts Parking Demand Study

The Citywide Parking Demand Analysis originated as a process to determine current and future adequacies of parking throughout the City as a basis by which to prioritize and plan future parking developments. Parking is clearly linked to the City's economic success. Moreover though, this process was not only based on parking demand and conducting parking counts, but included a comprehensive analysis of the City's economic growth, land uses, population trends, and effects of seasonality, collectively.

In July 2001, the Mayor and Commission authorized Walker Parking Consultants to conduct a Citywide Parking Demand "Analysis". As a reminder, the goal of undertaking this analysis was to provide clear direction to the Administration on how best to implement our Capital Improvement Plan for parking, by providing public parking where it's most needed and ideally serve as many uses and areas by strategic placement of these facilities. The "Analysis" consisted of five tasks: (1) physical inventory and analysis, (2) projection of future parking demand and need (supply/demand), (3) alternatives site analysis for future parking facilities, (4) cost and feasibility analysis, and (5) public involvement. The study areas consisted of major corridors within the City, they are as follows:

Corridors:

Altos del Mar
Normandy Isle West
Normandy Isle East
North Hotel
Middle Beach
Middle Hotel
Lincoln Road
West Avenue
Ocean Drive
South Pointe
N. Beach Town Ctr.

Boundaries:

75th - 87th Terrace/Collins Avenue - Harding Avenue
Calais Drive - Biscayne Bay/Rue Granville - City Limit
Biscayne Bay - Waterway/Rue Notre Dame - Indian Creek
42nd - 63rd Streets/Collins Avenue - Indian Creek
41st Street/Alton Road-Pine Tree Drive
Lincoln Road - 41st Street/Collins Avenue - Indian Creek
16th - 17th Streets/Alton Road - Washington Avenue
5th - 17th Streets/West Avenue to Biscayne Bay
6th - 15th Streets/Ocean Drive - Washington Avenue
South Pointe Drive - 6th Street/Ocean Drive - Alton Road
69th - 75th Streets/Atlantic Ocean - Biscayne Bay

Study Methodology/Revised Assumptions:

The physical inventory analysis and data collections (Task One) were conducted primarily in the months of July and August 2001; however, the circumstances of September 11, 2001 would have immediate and residual effects to the results of the demand component of the study and cause unforeseen and unavoidable delays. As a result, it was only prudent to attempt to capture, process, and analyze accurate data that was most reflective of the current economic conditions in the City. To this end, the Administration requested that Walker Parking revise many of the factors and assumptions used in calculating demand in most corridors. The revisions to the factors included revenue growth projections, weighted census data, and adjustments to seasonality. In some instances, multiple revisions were required as economic conditions fluctuated. The initial results (prior to revisions) are contained in the text of the report. The final changes are summarized in the addendum of each sub-area and the addendum is the basis for the projected adequacy chart in the executive summary and outlined in the table below.

The final draft document for the supply/demand phase of the study (attached hereto) consists of the physical inventory and supply/demand component with a summary table of adequacies/inadequacies within each study area with existing conditions and with five and ten year projections. The report consists of an executive summary, and each study area includes the following sub-headings: background, study methodology, study area, summary table, current conditions, effective supply, in-depth analysis, adequacy/inadequacy, future supply, future demand, future adequacy/inadequacy, summary of future conditions, and an addendum that reflects the revised assumptions, i.e. growth variables as described below.

Growth Projections:

The study initially analyzed historical data from (1995-2001), which was based on a period of unprecedented revenue growth. The original growth projections were made in early 2001 and were based on population trends, planned development, and historical economic data, primarily room, food and alcohol sales in each of the study areas. These factors resulted in an unrealistic projected growth in parking demand. Accordingly, the Administration revised the revenue growth factors utilized as the basis for the economic growth projections for each of the study areas. In a few cases, the population / economic blended growth ratios have also been

revised to better reflect the residential and/or commercial characteristics of those study areas. Both projections (the initial growth factors and the revised blended rates) are included in the attached study. The revised projections are reflected in the addendum to each sub-area analysis and are the basis for the Adequacy Table presented in page (xv) of the Executive Summary and presented below.

The revenue component of these projections have been revised to reflect current economic realities following September 11th and the national economic conditions, as well as updated population trends and planned developments. Population trends were analyzed for changes in population and housing units between the 1990 and 2000 census, as well as projections based on planned or anticipated developments. A seasonality factor was also developed using monthly historical data for room, food and alcohol sales. A weighted average of these two growth rates, population and revenue, was then blended and applied to the current parking data. Parking counts were further adjusted based on the seasonality factor to compensate for seasonality adjustments.

These projections make several assumptions and include several factors. The key assumption at the time of the projections was that events outside of local control such as a major war or another act of terrorism on US soil would not take place. Factors included projected changes in inventory of hotel rooms, the increase of the hotel room supply and absorption of those rooms into the marketplace, and occupancy and room rates. The Administration studied many forecasts by hospitality analysts, including Ernst & Young and PriceWaterhouseCoopers. The general attitude of the analysts was that the industry would not recover to 2000 revenue levels until at least 2004. By following occupancy and Average Daily Rate (ADR) trends from September 11, 2001 through December 31, 2002, the Administration developed the revised growth projections for each study area.

Evaluation of supply changes in hotel room inventory, as well as the reality that not all study areas have recovered or will recover at the same pace, led the Administration and consultant to adjust the estimated return of 2000 levels in some study areas to result in 2005 and possibly 2006.

Seasonality is based on the demonstrated fluctuations in parking demand that are experienced in the November-May time frames and the consultant utilized historical data as a basis for estimating the seasonality factor. Standard industry practice dictates that adjustments are made to examine conditions at 80% of the highest peak demand because examining data simply utilizing the busiest day of the year is not the most efficient to base projections on. (By way of background, the City initially requested the Consultant evaluate the data based on 100% of the high peak demand but this significantly skewed the inadequacy report. Thereafter, and contributing to the delay in finalizing the study, the City requested the Consultant to apply the industry standard of 80th percentile to the study to reflect a more realistic projected adequacy summary.)

Prioritized Sub-Areas (Existing or Imminent Inadequacy):

As described above, the Attached report was broken out by eleven (11) separate sub-areas. Each sub-area analysis is described in detail in the text of the report and an executive summary is also included with a summary of each. The following table summarizes the findings and projected parking adequacies i.e. demand vs. supply.

Estimate of Parking Adequacy			
Location	Current Adequacy	Projected 2008 Adequacy	Projected 2013 Adequacy
Altos Del Mar	225	(92)	(134)
Normandy Island West	(23)	8	(34)
Normandy Island East	65	(68)	(166)
North Hotel	383	332	292
Middle Beach	610	535	478
Middle Hotel	(838)	(1,159)	(1,347)
Lincoln Road	(780)	(2,091)	(2,766)
West Avenue	232	657	569
Ocean Drive	(1,254)	(3,369)	(4,321)

South Pointe	(69)	(608)	(795)
North Beach	93	(964)	(1,312)

Five (5) of the eleven (11) sub-areas currently reflect inadequate supply to meet demand. Four (4) of these five (5) areas continue to reflect inadequacies in 2008 and 2013 projections. However, Normandy Island West is currently planned to add additional on-street parking that will address its current inadequacies by 2008 as described in the report.

Additionally, in each of the study areas future planned and known development that would provide additional parking capacity was incorporated (refer to "Future Supply" section) and is referenced in each of the sub-areas, if applicable. Private parking facilities were also included in the data collection but many were assumed as fully utilized due to the nature of the facility. Where private facilities were available for public use, the supply factor was incorporated.

Prospectively, Five (5) sub-areas are identified as having the most significant deficit in the five and ten year projection. These areas are: Middle Hotel, Lincoln Road, Ocean Drive, South Pointe, and North Beach Town Center. The five sub-areas have been prioritized and will be the prioritized subjects of the Alternatives Analysis (next component of the demand analysis). The following is a brief description of the findings for each of the five (5) sub-areas identified above:

Middle Hotel

Middle Hotel is 25 blocks long and one block wide. The boundaries are Collins Avenue to Indian Creek and Lincoln Road to 41st Street. This sub-area also encompasses the Collins Park area. A shortage occurred in 11 of the 25-block study area. Currently, at peak demand, there is an 838-space deficit. A growth and seasonality factor was applied in order to determine future adequacy. In 2008 and 2013, it is projected to have a 1,159 and 1,347 space deficit, respectively.

Lincoln Road

Lincoln Road is a 30-block area bounded by 16th and 17th Streets between Alton Road and Washington Avenue. This sub-area encompassed five different uses, including commercial, office, retail, cultural, and municipal. A shortage occurred in 21 of the 30-block study area. Currently, at peak demand, there is a 780-space deficit. A growth and seasonality factor was applied in order to determine future adequacy. In 2008 and 2013, it is projected to have a 2,090 and 2,766 space deficit, respectively.

Ocean Drive

Ocean Drive is a 40- block area bounded by 6th and 16th Streets and between Ocean Drive and Washington Avenue. A shortage occurred in 30 of the 36-block study area. Currently, at peak demand, there is a 1,254-space deficit. A growth and seasonality factor was applied in order to determine future adequacy. In 2008 and 2013, it is projected to have a 3,369 and 4,321 space deficit, respectively.

South Pointe

South Pointe is a 71-block area bounded by South Pointe Drive and 6th Street and between Alton Road and Ocean Drive. This sub-area encompassed various uses, including commercial areas and recreational uses (park and marina). The area is experiencing significant reconstruction at this time. A shortage occurred in 21 of the 64-block study area. Currently, at peak demand, there is a 69-space deficit. A growth and seasonality factor was applied in order to determine future adequacy. In 2008 and 2013, it is projected to have a 608 and 795 space deficit, respectively.

North Beach Town Center

North Beach Town Center is bounded by 69th Street and 75th Street between the Atlantic Ocean and Biscayne Bay. This sub-area encompassed various uses, including office, retail, restaurant, and hotel. Additionally, there is a recreational park and band shell scheduled for renovation. A shortage occurred in seven of the 43-block study area. Currently, at peak demand, there is a 93-space surplus; however, a growth and seasonality factor was applied in order to determine future adequacy. In 2008 and 2013,

it is projected to have a 964 and 1,312 space deficit, respectively.

North Beach:

Walker completed the North Beach Town Center (the "Town Center" is defined as the area bounded by 75th Street on the north, the Atlantic Ocean on the east, 69th Street on the south, and Indian Creek on the west) analysis and report under a separate agreement prior to the other ten study areas in order to be included in the City's Charrette in June 2001. That effort included a sub area analysis focused on the commercial districts centered along Collins Avenue and 71st Street, as well as an evaluation of the suitability and financial feasibility of alternative sites for expansion of public parking. At the time of that analysis (June 2001), the City was involved in negotiations with the Related Co. for a mixed-use development on the 72nd Street parking lot site. The sub-area analysis, which includes the Related Co. development proposal, is included in this report as Appendix A. Subsequent to the City's decision to abandon plans to redevelop the 72nd Street parking lot, Walker revised only the portion of their report pertaining to the larger 43-block study area.

The revised Town Center report indicates an effective parking supply of 1,536 public spaces and 999 private spaces existing in the year 2001. After adjusting for seasonality by a ratio of 1.39, the peak occupancy was computed to be 96% on weekends and 93% on weekdays. Certain blocks within the study area experienced a deficit, while other blocks had available spaces. Future growth was projected at 1.94% annually, plus all vacant commercial space was assumed to become occupied. Future demand projections also assumed improvements to North Shore Park and Youth Center, the North Beach Recreational Corridor and the Byron-Carlyle Theater. The only change projected for the parking supply is the loss of 52 spaces in the parking lot inside North Shore Park (west of the new Youth Center). The results of the future demand projections are a deficit of 964 spaces by the year 2008 and a deficit of 1,312 spaces by the year 2013. Opportunities for increasing the supply of on-street parking have been exploited in the planning phase of the North Shore G. O. Bond Streetscape Project. Approximately 30-50 spaces can be added in the residential areas between 72nd Street and 75th Street. More significant opportunities to build structured parking have been analyzed in Appendix A. Several of these opportunities involve joint development between the City and private land owners.

Other Study Areas:

The six other sub-areas include: Altos del Mar, Normandy Island West, Normandy Island East, North Hotel, Middle Hotel and West Avenue. The detail of each of these sub-areas is contained in the text of the report and the addendum to each sub-area. While four (4) of the six (6) sub-areas project sufficient supply to meet future demand, the sub-areas of Altos del Mar and Normandy Island East reflect deficits in 2008 and 2013 of less than 175 parking spaces. The City will continue to evaluate opportunities to enhance parking and to assure future planned development meets and/or exceeds required parking.

Alternatives Analysis:

A second and next component of the study is to conduct an AA (Alternatives Analysis). This is an analysis of potential sites from various perspectives, including location, capacity/density, and costs. Walker Parking will conduct two additional AA, one for each South and Middle Beach (North Beach AA completed; however, it should be revisited due to the elimination of the 72nd Street Project). The AA will include the following tasks:

- Review existing vehicular and pedestrian access and circulation patterns for their relationship to existing and proposed parking facilities.
- Identify alternative sites for a new parking facility(s) and determine reasonable parking capacity for each site. External variables that will be considered are desirable density, phasing of construction, and incorporation of other uses (such as retail) in the proposed facility.
- Determine conceptual construction and project costs to enable a comparison of the costs of each alternative.
- Evaluate the various alternatives on the basis of qualitative criteria (mutually agreed upon by Walker and the City). The criteria generally includes: capital costs, life cycle costs, ability to generate revenue, location, visibility, site costs, pedestrian access, vehicular access, traffic impact, aesthetics,

implementation time, security, and future versatility. A weighted matrix will be used to achieve more objectivity and rank the alternatives.

Subsequently, an FFA (Financial Feasibility Analysis) will be conducted for the consensus site(s) of the alternatives analysis. The FFA will include the following tasks:

- Use operating expense information provided by the City, project annual operating expenses for a five-year period.
- Project estimates of probable construction costs, contingency costs and consulting fees. The City will provide interest rate and term of loan inputs.
- The City will provide an area rate analysis for each of the areas in order to arrive at consensus for parking rates and fees.
- Based on the information provided, annual net operating income of the proposed facilities will be projected for a five-year period.
- Prepare up to three (3) pro forma statements of net operating income, debt service coverage, and projected cash flow for a five-year period.

Listing of Potential Sites for AA:

As part of the alternatives analysis, the next phase of the study is to evaluate potential development sites within the City. The following publicly owned sites are being included as potential sites for review in the alternatives analysis, they include: Ocean Drive & South Pointe Drive surface lots, 13th Street and Collins Avenue Municipal Lot, Convention Center West Lots, Convention Center Preferred Lot, 17th Street and Lenox Municipal (10A) Lot, 21st Street and Collins Avenue Municipal Lot, 23rd Street and Liberty Ave (Fruit Stand) Lot, 46th Street and Collins Avenue Municipal Lot, 71st Street and Byron (Byron Carlyle Lot), 72nd Street Municipal Parking Lot, and 86th Street and Collins Avenue (Altos Del Mar). In addition to the aforementioned public sites, the following privately owned properties have expressed an interest in co-venturing with the City for parking development such as: the Portofino Lots, Potamkin Site, 5th Street and Collins Avenue (Rabina) Lot, 16th Street and Drexel Avenue (Cejaz Property), 1111 Lincoln Road (Suntrust Lot), 23rd Street and Collins Avenue (Avis Car Rental) Lot, and the 70th Street and Harding Avenue (City National Bank) Property. These sites and other private lots not yet identified may also be evaluated as part of this analysis.

Conclusion:

Based on the supply/demand analysis final draft attached and the information provided above, the Administration has placed an item on the April 9, 2003 City Commission agenda recommending a referral of the Final Draft report for the Supply/Demand Analysis to the Joint Finance and Citywide Projects and Land Use Committee as well as the Transportation and Parking Committee for their review and comment. It should be noted that the City's Planning Department and Economic Development were instrumental in providing a vast array of information required to complete this component of the study. Due to the extensive nature of data included in the study, staff is available to meet and brief the City Commissioners individually, as requested. Based on the information in this draft, the final phase of the study is being initiated, including the alternatives analysis and the financial feasibility analysis.

For more information:

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